Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Notice Regarding Carrier Current Systems,	)	
Including Broadband over Power Line	)	ET Docket No. 03-104
Systems	)	
	)	
Notice Regarding Amendment of Part 15	)	ET Docket No. 04-37
Regarding New Requirements and	)	
Measurement Guidelines for Access	)	
Broadband over Power Line Systems	)	
	)	

COMMENTS OF THE AMERICAN PUBLIC POWER ASSOCIATION

Introduction

Pursuant to Section 1.415 of the Commission's rules, 47 C.F.R. § 1.415, the American Public Power Association ("APPA"), hereby submits comments in response to the above referenced Notice of Proposed Rule Making ("NPRM").[1]

APPA is a national service organization that represents the interests of more than 2,000 publicly-owned, not-for-profit electric utilities located in all states except Hawaii. Currently, approximately three-fourths of APPA's members serve communities with less than 10,000 residents. Public power systems operated by municipalities, counties,

[1] *In the Matter of Carrier Current Systems, including Broadband Over Power Line Systems, Amendment of Part 15 Regarding New Requirements and measurement Guidelines for Access Broadband Power Line Systems*, Notice of Proposed Rule Making, ET Docket No. 03-104 and ET Docket No. 04-37; FCC 04-29 (2004) 69 FR 12612 ("BPL NPRM").

authorities, states and public utility districts provide electricity to approximately 43 million Americans.

Over the last ten years, the Internet has fundamentally altered the lives of Americans. The ability to instantly share and exchange information has revolutionized education, commerce, communications, health care, and entertainment. The rise of the information age, along with rapid technological changes, fueled much of the economic growth of the 1990s. Over this short time frame, communities and businesses across the country have concluded that access to advanced communications services is vital to economic survival, new development and educational and occupational opportunity. They view these services as a key component to their regional and global competitiveness and to the improvement and modernization of their health care systems.

While there seems to be a broad consensus among industry and policymakers that the deployment of broadband is a critical component of economic development, especially in rural and underserved communities, there is little agreement on how best to achieve this goal. Even in areas where there is broadband service, the lack of competition makes such service unaffordable to many. The end result of these factors is that many communities are being left behind in the digital age.

In addition, the lack of affordable broadband service not only affects the competitiveness and economic and educational opportunities of individual communities, it affects that of the United States as a whole. President Bush recently stated in a speech in Albuquerque, New Mexico, that high speed Internet access is "essential to the nation's economic growth." [2] He declared:

[2] See "Bush Calls for Universal Broadband by 2007," MSNBC (March 26, 2004) at http://www.msnbc.com/id/4609864

> This country needs a national goal for broadband technology, for the spread of broadband technology. We ought to have a universal, affordable access for broadband technology by the year 2007, and then we ought to make sure as soon as possible thereafter, consumers have got plenty of choices when it comes to purchasing the broadband carrier.[3]

The President further expanded on the importance of broadband technology in a memorandum he sent to the heads of executive departments and agencies on April 26, 2004.

> Broadband, also known as high-speed Internet access, has the potential to bring new services and products to American consumers and businesses, fostering innovation, investment, and job-producing economic growth. My Administration has long recognized the economic vitality that can result from broadband deployment and is working to create an environment to foster broadband deployment. All Americans should have affordable access to broadband technology by the year 2007.[4]

Public power systems long ago recognized the importance of broadband to their communities and agree with the President that universal broadband service should be a key national goal.

In President Bush's address to the American Association of Community Colleges Annual Convention he said, "…by the way, we [The US] rank 10th amongst the industrialized world in broadband technology and its availability."[5] He does recognize the importance of alternative technologies, such as BPL technology. He goes on to state "There needs to be technical standards to make possible new broadband technologies,

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[3] See "The Promise of a Broader Superhighway," Washington Post (April 1, 2004) at http://www.washingtonpost.com/ac2/wp-dyn/A40594-2004March31?language=printer

[4] Presidential Memorandum to the Heads of Executive Departments and Agencies (April 26, 2004) at http://www.whitehouse.gov/news/releases/2004/04/20040426-2.html

[5] "President Unveils Tech Initiatives for Energy, Health Care, Internet," transcript of remarks by the President at American Association of Community Colleges Annual Convention, Minneapolis, Minnesota (April 26, 2004), at: http://www.whitehouse.gov/news/releases/2004/04/20040426-6.html

such as the use of high-speed communication directly over power lines. Power lines were for electricity; power lines can be used for broadband technology. So the technical standards need to be changed to encourage that."[6] The outcome of this Notice of Proposed Rule Making should embrace this goal.

APPA is pleased that the Commission is going forward with this Notice of Proposed Rule Making. APPA believes that the availability of a third platform for the delivery of broadband services will help speed up the deployment of broadband, particularly in rural and high-cost areas, and foster true competition, thus resulting in lower prices for consumers. Public power systems across the country are already filling in broadband service gaps or providing competition to incumbent providers through the use of fiber, hybrid fiber-coaxial, and wireless technologies. Many of APPA's members are interested in BPL technology as a platform for providing broadband services to their communities and to monitor and control their electric systems. We urge the Commission to adopt rules that make widespread deployment of BPL a reality.

Discussion

APPA believes the Commission has adopted the right overall approach to promoting the deployment of BPL technology while ensuring that existing radio operators are protected from harmful interference. While APPA has some concerns with specific proposals raised in the Notice of Proposed Rule Making, such as the notification and database requirements and the possibility of the adoption of specific mitigation requirements, the Association is supportive of the Commission's general approach to

[6] *Ibid.*

promoting Access BPL technology and strongly urges the Commission to adopt flexible rules that accommodate the various types of BPL technologies being developed. Most importantly, APPA urges the Commission to make it clear that public power systems can and should be providers of Access BPL services.

Below are APPA's responses to the various rules proposed by the Commission in the Notice of Proposed Rule Making.

1. **The Commission's proposed definition of Access BPL is acceptable.**

The Commission has proposed a definition of Access BPL "that is consistent with the concept of Access BPL and the current and planned deployment of this technology."[7] APPA urges the Commission to adopt this definition.

2. **The application of existing Part 15 emission limits for current carrier systems to Access BPL systems are more than sufficient for limiting harmful interference by BPL.**

Two years ago the City of Manassas, Virginia, with funding from APPA's research and development arm, the Demonstration of Energy-Efficient Developments (DEED) program, teamed up with Main.net Power Line Communications, Inc. to test BPL technology. During that trial period, the City of Manassas -- following existing Part 15 emission limits, as proposed in this NPRM -- did not receive a single report of harmful interference. As Manassas has started to commercially deploy this service throughout the city, it still has not received any complaints of harmful interference. APPA believes that findings from Manassas' project provide strong evidence that existing Part 15 rules are more than sufficient to limit harmful interference. In addition, the requirement that an

[7] BPL NPRM.

unlicensed device operating under Part 15 must cease operating if it causes harmful interference provides an adequate safeguard against potential interference by Access BPL systems.[8]

3. **Requiring that Access BPL systems and devices incorporate capabilities that would allow the operator to modify system performance to mitigate or avoid harmful interference to radio services is acceptable, as long as the Commission does not adopt specific mitigation requirements.**

APPA understands the Commission's desire to mitigate potential interference to radio services and believes requiring that Access BPL systems and devices incorporate such capabilities are reasonable. The City of Manassas is currently utilizing technology by Main.net, which reported to the Commission in its Notice of Inquiry comments, that its technology has interference mitigation capabilities.[9] APPA understands the Commission's desire to avoid harmful interference and believes requiring systems to have mitigation capabilities strikes an appropriate balance between the promotion of Access BPL and the desire to reduce harmful interference.

The Association is concerned, however, about the adoption of specific requirements for mitigation. Should the Commission decide to adopt specific requirements for any such mitigation approaches, the Commission must be sensitive to the impact such changes would have on utilities currently testing or deploying BPL systems. Those utilities that have deployed BPL prior to the date of enactment of any FCC BPL rules pursuant to this NPRM should be grandfathered as long as they are compliant with Part

[8] 47 C.F.R. § 15.5(b).

[9] See p. 4 of Main.net comments dated 7/7/03 to FCC proceeding 03-104 http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_r_pdf=pdf&id_document=6514284546

15 rules and are not causing harmful interference. Subjecting utilities to new mitigation requirements after they have deployed BPL services could have a serious financial impact on utilities and may result in them either canceling deployments or significantly slowing them down, resulting in significant financial harm. The key purposes of this proceeding are to promote the development and deployment of this technology, not to hamper them. The Commission should not adopt any rules that would inadvertently counter its stated goal of promoting BPL deployment.

In addition, imposing specific mitigation capabilities on those utilities that have made great investments in testing and deploying this technology would punish early adopters. Should the Commission feel compelled to adopt specific mitigation capabilities, it must give utilities sufficient time to become compliant with the new rules. APPA urges the Commission to consider the heavy financial burden it would place on BPL early-adopter utilities if it required them to meet new mitigation rules without ample time to make the necessary changes to their systems.

4. APPA has serious concerns with the creation of a publicly accessible database that contains information on the consumers, the manufactures, and location of Access BPL installations and the operating characteristics of the systems.

APPA members operate under the sunshine rules as imposed upon all publicly owned and operated utilities. We believe in the transparency of records and the sharing of information as related to the operation of the utilities assets; however, we are concerned about the privacy issues related to our customers and equipment suppliers. We implore the Commission to ensure that all personal information about the consumer and that any

proprietary information from the equipment manufacture is protected from third parties. Lastly we are concerned about disclosing specific information on the location and operation of BPL equipment that supports our electric delivery operations and want to ensure that these systems are protected from any malicious intent.

a. The Commission's notification and data proposal is ambiguous and raises more concerns than it answers questions.

APPA believes the Commission's notification and database proposal is broad and ambiguous and raises serious proprietary, privacy, and national security issues. At what level would the Commission require information on the location of the installation? The transformer level? The customer level? When would the utility have to notify the "entity" about its installation location information, the type of modulation used, and the frequency of the bands of operation? How often? What would be the cost of complying with such reporting requirements? Who is going to pay to maintain this entity? Why should utilities have to submit information for a database when other users of unlicensed spectrum do not have such reporting requirements? Until the Commission can provide more detail on what specific information it thinks should be collected and how such data collection would actually help with mitigation of harmful interference, it should, at a minimum, put off making any notification and database rules in this NPRM.

b. The Commission's notification and data proposal raises serious privacy issues.

Requiring that a utility must submit sensitive installation and operational characteristics data to an unknown entity -- and which would be publicly accessible -- would raise privacy concerns. The Commission's proposal would make proprietary data

accessible to the public and give incumbent broadband providers a wealth of information about customers currently receiving BPL services. APPA members take the privacy concerns of their consumers seriously. This proposal could potentially subject public power customers to harassment by individuals who believe their Internet access is causing harmful interference.

c. The Commission's notification and data proposal raises serious national security issues.

Public power utilities have serious concerns with the public availability of any information regarding their electric distribution systems. Access BPL technology is not just viewed as a platform for providing broadband services, but will allow public power utilities to monitor and control their electric distribution systems. If APPA members were required to provide detailed information on their deployment of BPL systems to a public database, that would raise serious national security concerns. Terrorists and others looking to cause harm would be able to access the database of critical infrastructure information and be able to see how distribution networks were laid out and could potentially be able to disrupt electric service. The availability of this information would give many public power systems pause when considering whether to deploy BPL technology.

5. APPA needs assurance that municipal utilities that wish to provide BPL will not be prevented from doing so by state barriers to entry.

As a result of the U.S. Supreme Court decision in Nixon v. Missouri Municipal League, states may now create barriers to entry for municipal utilities that want to provide telecommunications services without the possibility of preemption by the FCC

under section 253(a) of the Telecommunications Act. If BPL is classified in whole or in part as a telecommunications service, state barriers to entry may also extend to BPL. However, whether or not BPL is classified as an information service, the legislative history of advanced telecommunications capability in the Telecom Act may provide the FCC authority to preempt any state restriction of municipal utilities providing BPL services. APPA urges the Commission to state that restrictions on municipal provision of BPL services are prohibited.

Summary

BPL is a technology that can permit public power electric utilities to provide facilities-based, broadband services to rural and underserved communities that presently do not have such service or are served only by a monopoly, as well as to enhance their capability to monitor their electric distribution systems. APPA urges the Commission to adopt rules that are flexible enough to accommodate this newly developed technology and the public power utilities that are in the position to employ it.

Respectfully submitted,

American Public Power Association
2301 M Street, NW
Washington, DC 20037

By: Desmarie Mosco, Government Relations Representative

Additional contact: Joe Nipper, Senior Vice President, Government Relations